BEFORE THE STATE OF WASHINGTON POLLUTION CONTROL HEARINGS BOARD

IN THE MATTER OF THE ORDER BY THE DEPARTMENT OF ECOLOGY DENYING THE REQUEST BY LOCKHEED SHIPBUILDING AND CONSTRUCTION COMPANY FOR TEMPORARY MODIFICATION OF WATER QUALITY CRITERIA	))))))))	Memorandum in support of Lockheed Shipbuilding and Construction Company's Notice of APPEAL from Order Docket No. DE 81-682

To: Pollution Control Hearings Board
Mail Stop PY-21
Olympia, WA 98504

and

To: Director, Department of Ecology
Mail Stop PV-11
Olympia, WA 98504

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I. INTRODUCTORY STATEMENT

Lockheed Shipbuilding and Construction Company (hereinafter Lockheed), a wholly owned subsidiary of Lockheed Corporation is incorporated in the state of Nevada and does business in the State of Washington.

Lockheed is engaged in the business of constructing new ships as well as repairing and overhauling ships already in service. A substantial portion of this work is done under contract with the United States Government.

In order to perform its shipbuilding and ship repair functions, Lockheed operates two floating dry docks with wooden pontoons at its shipyards in Seattle, Washington. The Huff Dock is owned by Lockheed. The YFD-23 dry dock is owned by the United States Navy and is leased by Lockheed. Specifically, the wooden dry docks are located in Elliott Bay at the mouth of the Duwamish River. A dry dock is used for each and every new ship construction job at Lockheed and in approximately 85-90% of all ship repair work.

II. FACTUAL BACKGROUND

The internal timbers of the wooden dry docks are threatened with destruction due to infestation by a molluscan species of marine-borer, *Bankia setacea*. The *Bankia setacea* (marine-borer) destroys wood by drilling tunnels that expand with depth from a tiny entrance hole, made by the previously free-swimming *Bankia* larva, as it settles to begin its adult life. Following metamorphosis, the adult borer is permanently confined inside its burrow. The tunnel gradually expands to a width in excess of one-half inch beneath the original entrance hole, which remains small and barely detectable by eye. Within months, the tunnel may exceed

one foot in length and eventually a three to four foot tunnel may be burrowed. Uncontrolled, the tunnelling and growth of the embedded borers could destroy the dry docks in a relatively short time.

The subject dry docks are routinely inspected twice yearly and have been treated regularly to inhibit marine-borer growth. The treatment involves holding a sodium arsenite and sea water solution in the dry dock for seventy-two (72) hours. Following that period, the dry dock is ballasted so that the solution is further diluted to minimum concentration. Samples of the solution are removed from the flooded chambers for analysis to ensure that a legally permissible concentration of sodium arsenite has been attained. In addition, samples of the highly diluted discharge are collected, analyzed and reported to the Washington State Department of Ecology to ensure compliance with Federal and State laws.

On March 3, 1981, Lockheed was advised by the Washington State Department of Ecology that use of sodium arsenite will no longer be permitted as a pesticide to inhibit marine-borer growth. Pursuant to the notification, Lockheed has conducted an extensive, high-priority investigation of feasible alternatives for minimizing infestation by marine-borers in the dry docks.

The utmost importance of the ongoing investigation was reinforced in October 1981 when the British Columbia Research Council, at the request of Lockheed, analyzed the condition of the dry docks and supplied a projection for deterioration of the subject dry dock when deprived of effective marine-borer control. British Columbia Research reported that the YFD-23 dry dock and the Huff Dock had remaining lives of 6±2 years and 15±5 years respectively under normal operation. With adequate control, the useful lives of the dry docks could be tripled, at a minimum.

Because the dry docks were last treated in late 1980, and evidence of increased borer activity was reported upon analysis of the dry docks in early spring, on June 9, 1981 Lockheed requested the Washington State Department of Ecology for a temporary variance in order to treat the dry docks while Lockheed continued its search for a suitable alternative.

On November 12, 1981, the Washington State Department of Ecology issued an ORDER, Docket No. DE 81-682, denying a temporary modification of water quality criteria for the purpose of discharging a highly diluted sodium arsenite solution following dry dock treatment.

III LOCKHEED HAS AN INTEREST OF AN ECONOMIC NATURE AND HAS BEEN ADVERSELY AFFECTED BY THE ORDER

Lockheed is in the business of construction of new ships and repairing and overhauling ships already in service. When constructing a new ship, the shipbuilder

must drydock each and every new ship in order to apply final hull coatings prior to delivery. It is obviously impossible to apply such coatings without putting the ship in a dry dock.

Eighty-five to ninety percent of all ship-repair jobs performed by Lockheed require the use of a dry dock. In addition to general cleaning and inspections, Lockheed is often called upon to repair damaged vessels or completely overhaul Navy ships. Specifically, during annual safety inspections of government vessels, the sea valves must be opened for inspection, the sea chests and underwater body must be checked, as well as the shaft bearings, rudder bearings, and propellers. Often deteriorated steel must be renewed (i.e,, seam welding, plate replacement) due to erosion. In the case of a damaged ship, it must be drydocked for survey purposes as well as specific repairs, often including propeller changes, wheel repair or various hull work.

Lockheed's business would clearly be detrimentally affected if the dry docks were allowed to deteriorate without controlling the devastating infestation of the marine-borer.

IV LOCKHEED HAS MADE, AND CONTINUES TO MAKE, A GOOD FAITH EFFORT TO FIND A SUITABLE ALTERNATIVE TO THE SODIUM ARSENITE TREATMENT

Representatives from Lockheed have contacted biology, oceanography and zoology experts at several institutions. The Company is engaged in ongoing correspondence with several experts in the academic setting.

In addition, Lockheed has engaged an independent research group to work with management toward resolution of the marine-borer infestation in a manner that is in compliance with State and Federal laws.

Furthermore, Lockheed has solicited bids from other parties who have suggested feasible alternatives

V LOCKHEED TAKES EXCEPTION TO CERTAIN STATEMENTS SET FORTH IN THE ORDER (DOCKET NO. 81-682)

Lockheed objects to the NOAA study cited in Paragraph Three (3) of the Order because the study has not been published nor are the findings disclosed to private parties. Lockheed has found that the most current NOAA study available shows that the closest NOAA testing site to the Lockheed dry docks had a reading well below the 640 p.p.m. cited in the Order. The testing site was in fact upriver

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from the location of the Lockheed dry docks on Elliott Bay, therefore would presumably reflect a higher concentration of that which would be present at the vicinity of the Lockheed dry docks which are located directly on the Bay.

In reference to Paragraph Four (4) of the Order, Lockheed wishes to point out that the Los Angeles Chemical Company (manufacturer of Lacco #6, the sodium arsenite product used in the dry dock treatment) has an application pending at the Washington State Department of Agriculture for a modification of the label. Upon approval of the application, the label will be modified to include dry dock treatment of marine-borers as an acceptable use of the product.

VI RELIEF SOUGHT

Lockheed requests that it be granted a temporary modification of water quality criteria for purpose of discharging a sodium arsenite solution used during treatment to its two wooden dry docks for the purpose of controlling infestation of wood worms while continued investigations are conducted to find a suitable alternative to the sodium arsenite treatment.

I, Karl F. Gumnick, have read the above Notice of Appeal and believe the contents to be true.

Karl F. Gumnick

Name, Karl F. Gumnick
Title, Director of Industrial Engineering

Carol R. Werner

Carol R. Werner
Legal Assistant

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